ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2014

Hallandale Beach
PROGRESS. INNOVATION. OPPORTUNITY.

Presented By
City of Hallandale Beach

"Este informe contiene información muy importante sobre su agua potable. Para recibir este folleto en español o recibir asistencia en traducirlo, por favor llame al teléfono 954-457-1623 o visite 630 NW 2nd Street, Hallandale Beach, FL 33009."

PWS ID#: 4060573

To Our Valued Customers

The City of Hallandale Beach is once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2014. Over the years, the City has dedicated itself to producing drinking water that meets all state and federal standards. As a water utility provider, we continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of our water users.

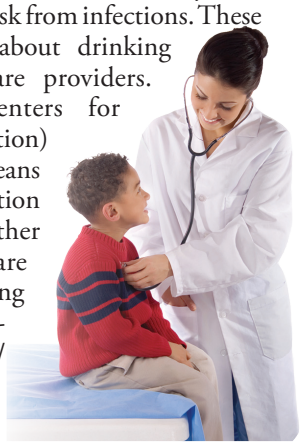
Please remember that City staff is always available to assist you should you ever have any questions or concerns about your water.

Community Participation

You are invited to participate in City Commission meetings and voice your concerns about your drinking water. The Commission meets the first and third Wednesdays of each month. The Commission meeting Chamber is located in the City's Municipal Complex at 400 South Federal Highway in Hallandale Beach. Please call (954) 457-1300 or visit the City's Web site at www.cohb.org to obtain meeting times and additional information.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.



Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

Sources of City Drinking Water

Drinking water can come from either groundwater sources (via wells) or surface water sources (such as rivers, lakes, and streams). The City of Hallandale Beach is supplied by groundwater from the Biscayne Aquifer. This groundwater is withdrawn by wells drilled approximately 100 feet into the aquifer. Two wells that supply Hallandale Beach with water are located within the City limits. The City is also supplied with well water from Broward County's South Regional Well Field located in Southwestern Broward County. The City of Hallandale Beach is fortunate to have groundwater rather than surface water as its source for the City's drinking water supply. Groundwater is less likely to contain contaminants than surface water sources. In emergencies, we have an agreement with the City of North Miami Beach to purchase water through our interconnected water mains.

Source Water Assessment

In 2014, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There is one potential source of contamination identified for our system with a moderate susceptibility level. FDEP is monitoring and tracking groundwater at this source. The assessment results are available on the FDEP Source Water Assessment and Protection Program Web site at www.dep.fl.us/swapp, or they may be obtained by calling Steven Parkinson, Public Works Director, at (954) 457-1623.

How Is My Water Treated and Purified?

During the period covered by this Water Quality Report, the City of Hallandale Beach utilized two methods to treat its potable water supply. The two methods are used together and yield a quality finished water product that is very agreeable to sight and taste. The first method is called lime softening, and has been used by the City for many years to treat its potable water supply. A second treatment method has also been added called membrane softening. Membrane softening treatment yields extremely high-quality water and assures that the City's drinking water supply meets, and exceeds, drinking water regulatory requirements. The City adds chlorine to its drinking water in compliance with state regulatory standards. Chlorine is added in very small amounts to prevent contamination from harmful bacteria. The City also adds fluoride to it's drinking water. Fluoride is added in very small quantities recommended by the U.S. Department of Health and Human Services to effectively reduce the incidence of tooth decay.

Water Conservation

The City of Hallandale Beach is committed to protecting the region's precious water resources. Accordingly, the City complies with, and enforces, landscape irrigation restrictions mandated by the South Florida Water Management District. Further, City Ordinance 2011-04 restricts landscape irrigation to two days per week, before 10:00 am and after 4:00 pm. Odd number addresses may irrigate on Wednesdays and Saturdays. Even number addresses may irrigate on Thursdays and Sundays.

The City is also a member of the Broward Water Partnership and their Conservation Pays Program. The Conservation Pays Program offers rebates and free water-conserving devices to qualifying City of Hallandale Beach water customers. It also includes community outreach and education components. Information on the Broward Water Partnership Program is available on the City's Web page at www.cohb.org, or by calling (954) 457-1623.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Steven Parkinson, Public Works Director, at (954) 457-1623 or via email: sparkinson@cohb.org.

Unregulated Contaminant Monitoring

The City of Hallandale Beach has been monitoring for unregulated contaminants (UCs) as part of a study to help the U.S. Environmental Protection Agency (U.S. EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

When was drinking water first regulated?

The Safe Drinking Water Act (SDWA) of 1974 represents the first time that public drinking water supplies were protected on a federal (national) level in the U.S. Amendments were made to the SDWA in 1986 and 1996.

How much water do we use every day?

The average person in the U.S. uses 80 to 100 gallons of water each day. (During medieval times, a person used only 5 gallons per day.) It takes 2 gallons to brush your teeth, 2 to 7 gallons to flush a toilet, and 25 to 50 gallons to take a shower.

When was chlorine first used in the U.S.?

In 1908, Jersey City, New Jersey, and Chicago, Illinois, were the first water supplies to be chlorinated in the U.S.

Seventy-one percent of Earth is covered in water: how much is drinkable?

Oceans hold about 96.5 percent of all Earth's water. Only three percent of the Earth's water can be used as drinking water. Seventy-five percent of the world's fresh water is frozen in the polar ice caps.

How much water is in our atmosphere?

Forty trillion gallons of water are carried in the atmosphere across the U.S. each day.

How much water is in our bodies?

Water makes up almost two-thirds of the human body and 70 percent of the brain. Between four and six gallons of water are recycled through our kidneys each day.

How long can a person go without water?

Although a person can live without food for more than a month, a person can live without water for only approximately one week.

Is tap water cheaper than soda?

Yes! You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And water has no sugar or caffeine.

Sampling Results

This table shows the results of water quality testing that the City of Hallandale Beach performs. It lists all substances detected in your drinking water, including those found in very small amounts. All samples were collected and tested in accordance with the Florida Department of Environmental Protection rules and regulations. The State requires the City to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample results are indicated, along with the year in which the sample was taken.

PRIMARY REGULATED CONTAMINANTS

Microbiological Contaminants

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	HIGHEST MONTHLY PERCENTAGE	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Total Coliform Bacteria (% positive samples)	6/2014	No	1.96	0	Presence of coliform bacteria in 5.0% of monthly samples	Naturally present in the environment

Inorganic Contaminants

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Barium (ppm)	9/2014	No	0.0019	NA	2.0	2.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	9/2014	No	0.61	NA	4.0	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories; water additive that promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Sodium (ppm)	9/2014	No	15.5	NA	NA	160	Salt water intrusion, leaching from soil

Disinfectant/Disinfection By-Product (D/DBP) Parameters

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR [MRDLG]	MCL OR [MRDL]	LIKELY SOURCE OF CONTAMINATION
Chloramines (ppm)	2014	No	2.55	2.0–3.0	4.0	4.0	Water additive used to control microbes
Haloacetic Acids (five) [HAA5] (ppb)	9/2014	No	4.4	3.8–4.4	NA	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	9/2014	No	1.3	0.93–1.3	NA	80	By-product of drinking water disinfection

Lead and Copper (Tap water samples were collected from sites throughout the community)

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	AL EXCEEDANCE (YES/NO)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
Copper [tap water] (ppm)	8/2014	No	0.021	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead [tap water] (ppb)	8/2014	No	1.2	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

UNREGULATED CONTAMINANTS

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	AVERAGE RESULT	RANGE OF RESULTS	LIKELY SOURCE OF CONTAMINATION
Chlorate (ppb)	3/2014	298	295–300	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Chlorodifluoromethane (ppb)	3/2014	0.081	ND–0.081	Chlorofluorocarbon; occurs as a gas and used as a refrigerant, as a low-temperature solvent, and influorocarbon resins, especially tetrafluoroethylene polymers.
Chromium (Total) (ppb)	3/2014	0.22	0.21–0.22	Discharge from steel and pulp mills; erosion of natural deposits.
Chromium-6 (ppb)	3/2014	0.082	0.079–0.085	Naturally occurring element, used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Strontium (ppb)	3/2014	139	135–142	Natural-occurring element; historically, commercial use of strontium has been in the faceplate of cathode-ray tube televisions to block x-ray emissions.
Vanadium (ppb)	3/2014	0.40	0.35–0.44	Naturally occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst.

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

IDSE (Initial Distribution System Evaluation): An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).